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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,192	09/26/2000	Siegfried Kurt Buss	FAO-0019	5598

7590

07/30/2003

CANTOR COLBURN LLP  
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EXAMINER

SEALEY, LANCE W

ART UNIT

PAPER NUMBER

2671

DATE MAILED: 07/30/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/670,192

Applicant(s)

BUSS ET AL.

Examiner

Lance W. Sealey

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2671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 10, 11, 13-17, 19, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 6, 8, 9, 12, 18, 20, 21 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5-7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## DETAILED ACTION

### *Allowed and Allowable Subject Matter*

1. Claims 6, 8-9, 12, 18, 20-21 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. No prior art anticipates or suggests, in a computer based method featuring smaller files decomposed from a computer aided design file of a model, at least one smaller file which contains a list of specified surfaces on said model and data relating to the smallest possible three-dimensional region that can enclose each specified surface (claims 6 and 18), and each of said at least one of said defined volumes comprising the smallest possible three-dimensional region that can enclose said inspection surface (claims 12 and 24). Claims 8-9 and 20-21 are allowable because they depend, directly or indirectly, on claims 6 and 18, respectively.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of 35 U.S.C. 102(b) which forms the basis for all novelty rejections set forth in this Office action:

A person shall be entitled to a patent unless—

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7, 13-17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Noble (U.S. Pat. No. 5,392,222).

4. Noble, in disclosing locating a field of view in which selected integrated circuit

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conductors are unobscured, also discloses, with respect to claims 1 and 13, a computer based method comprising:

- decomposing data from a computer aided design file of a model (setup tool **2320**, FIG.22),
- saving said decomposed data in a plurality of smaller files wherein at least one of said smaller files is an analysis file which does not contain imaging data (FIG.22. The analysis file that does not contain imaging data is the file that holds the FINDNET program. See col.20, ll.1-9), and
- accessing at least one of said analysis files to analyze the surface geometry of said model (the FINDNET program uses polygon and trapezoid files **2235** to analyze surface geometry; see col.20, ll.1-9).

5. Concerning claims 2 and 14, Noble discloses said at least one of said analysis files does not substantially contain data required to display an image of said model (col.20, ll.3-5).

6. Regarding claims 3 and 15, Noble discloses said at least one of said analysis files consists of data required to analyze said surface geometry (col.20, ll.1-9).

7. With respect to claims 4 and 16, Noble discloses at least one of said smaller files comprises imaging data (col.19, ll.65-68).

8. Concerning claims 5 and 17, Noble discloses at least one of said smaller files does not substantially contain data required to analyze said surface geometry (technology file **2225**,

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FIG.22, and col.20, ll.11-12).

9. Regarding claims 7 and 19, Noble discloses at least a second of said at least one smaller files comprises substantially only data required for the mathematical analysis of said surface data (polygon and trapezoid files **2235**, FIG.22).

10. Therefore, in view of the foregoing, claims 1-5, 7, 13-17 and 19 are rejected as being anticipated under 35 U.S.C. 102(b) by Noble.

11. Claims 10-11 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosenberg et al. ("Rosenberg", U.S. Pat. No. 5,724,264).

12. Rosenberg, in disclosing a method and apparatus for digitizing a 3-D object, also discloses, with respect to claims 10 and 22,

- inputting a computer aided design file containing a model of a physical object, at least one inspection surface on said physical object corresponding to an equivalent surface on said model, wherein each of said surfaces on said model is enclosed by a different defined volume (object **20**, FIG.1, is the physical object, and mesh representation **78**, FIG.1, is the computer aided design file. The input occurs at col.21, ll.35-38.);
- including a datum point common to both said model and said physical object (existence is inherent in col.21, ll.35-38 because if the mesh representation is a replica of the object, there will of course be common datum points between the object and the model);

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- inputting the position of a surface point on an inspection surface of said physical object  
(Any point in the mesh qualifies as an input surface point, the display on which the mesh 78 appears (FIG.1) is the inspection surface, and all points inherently have position.);
- defining at least one target volume is from said defined volume that encloses said surface point (“defined volume” is object 20, FIG.1, and “target volume” is mesh representation 78, FIG.1); and
- determining the distance between the surface on said model enclosed by said at least one target volume and said point on said physical object (col.10, ll.19-25).

13. Concerning claims 11 and 23, Rosenberg discloses the target volume comprising the defined volume closest to said datum point if no defined volume enclosed said point (inherent because models (target volume) typically replicate physical objects (defined volume), so if a volume, if it had been defined, would had enclosed or had been close to the datum point, then the target volume would enclose or be close to a datum point).

14. Therefore, in view of the foregoing, claims 10-11 and 22-23 are rejected as being anticipated under 35 U.S.C. 102(b) by Rosenberg.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the Office should be directed to the examiner, Lance Sealey, whose telephone number is (703) 305-0026. He can be reached from 7:00 am-3:30 pm Monday-Friday EDT.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman, can be reached at (703) 305-9798.

**Any response to this action should be mailed to:**

MS Non-Fee Amendment

Commissioner for Patents

P.O. Box 1450

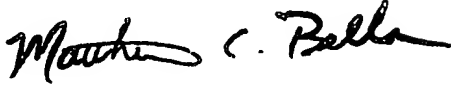
Alexandria, VA 22313-1450

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

  
MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600